^{101}Ru(γ,pγ) 1978Ba18

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 172, 1 (2021)	31-Jan-2021

1978Ba18: E(max)=40 MeV γ beam was from bremsstrahlung radiation with the Giessen electron linear accelerator. Target was about 100 mg/cm^2 ^{99}Ru. x rays were detected with a Low-Energy-Photon (LEP) detector and γ rays were detected with a Ge(Li) detector. Measured Eγ, Iγ, K x ray, γ(t), K x ray(t). Deduced $T_{1/2}$.

Other: 1964Br27.

^{100}Tc Levels

E(level)	J$^\pi$[†]	$T_{1/2}$	Comments
0.0	1$^+$		
172.3 *3*	2$^+$		
201.0 *4*	(4)$^+$	8.2 μs *3*	$T_{1/2}$: from 1978Ba18. Other: 11.5 μs *20* (1964Br27).

[†] From the Adopted Levels.

γ(^{100}Tc)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[†]	α[‡]	Comments
28.7 *3*	201.0	(4)$^+$	172.3	2$^+$	E2	112 *7*	α(K)=38.9 *11*; α(L)=60 *5*; α(M)=11.2 *8* α(N)=1.57 *12*; α(O)=0.00676 *24*
172.3 *3*	172.3	2$^+$	0.0	1$^+$	M1+E2		Iγ(172γ)/Iγ(29γ)=82 *40*.

[†] From the Adopted Gammas.

[‡] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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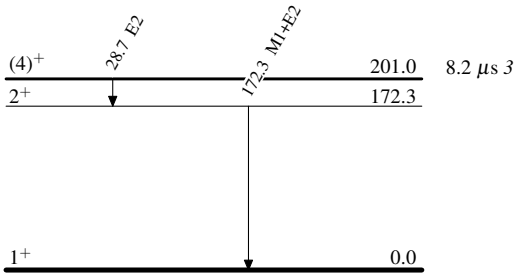
Level Scheme



$^{100}_{43}Tc_{57}$